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Serial No.: 10/058,264
Docket No. NEC01P260-H1a

2

AMENDMENTS TO CLAIMS

Please cancel claims 1, 9, 13 and 21 without prejudice or disclaimer.

1. (Canceled)
2. (Currently amended) A computer system comprising:
 - a plurality of central processing unit ~~units~~ (CPU) and memory installed apparatuses ~~comprising a having at least one CPU and a at least one memory;~~
 - a plurality of input/output control apparatuses which are assigned to the plurality of CPU and memory installed apparatuses, respectively, and communicate with the plurality of CPU and memory installed apparatuses via a network; and
 - a plurality of diagnostic control circuits which are connected to the ~~each diagnostic control circuit of said plurality of diagnostic control circuits being connected with one of said plurality of the CPU and memory installed apparatuses and~~ ~~and with one of said plurality of input/output control apparatuses, and each of said plurality of diagnostic control circuits being connected to one another; and~~
 - ~~a network connecting said CPU and memory installed apparatuses and said input/output control apparatuses to each other,~~
 - wherein a CPU and memory installed apparatus ~~each~~ of said plurality of CPU and memory installed apparatuses comprises communication means for transmitting an input/output instruction issued by a at least one CPU of the said plurality of CPU and memory installed apparatus apparatuses to an at least one of said input/output control apparatus apparatuses assigned in advance to said at least one CPU and memory installed apparatus apparatuses via said network, and receives a response from at least one of said input/output control apparatus apparatuses via said network,
 - wherein ~~each of said input/output control apparatus apparatuses~~ comprises communication means for receiving the an ~~an~~ input/output instruction from the at least one CPU and memory installed apparatus apparatuses assigned in advance to at least one of said plurality of input/output control apparatus apparatuses via said network, and transmits a ~~the~~ response to said input/output instruction to said ~~at least one CPU and memory installed apparatus apparatuses via said network, and~~

Serial No.: 10/058,264
Docket No. NEC01P260-H1a

3

wherein ~~when one of~~ said plurality of diagnostic control circuits comprises a diagnostic control circuit connected to the ~~detects a fault in a connected CPU and memory installed apparatus and input/output control apparatus, and if said diagnostic control circuit detects a fault in the~~ retrieves previously stored information that determines a new connection between a non-faulty CPU and memory installed apparatus, then the diagnostic control circuit determines an other CPU and memory installed apparatus of the plurality of CPU and memory installed apparatuses which will use the ~~and an input/output control apparatus originally connected to a faulty CPU and memory installed apparatus.~~

3. (Currently amended) A computer system according to claim 2, wherein said communication means of ~~each of~~ said input/output control apparatus ~~apparatuses~~ comprises:

means for receiving the input/output instruction as being effective only when the source of the input/output instruction received via said network is a CPU and memory installed apparatuses which has been set in advance.

4. (Currently amended) A computer system according to claim 2, wherein said communication means of ~~each of~~ said CPU and memory installed apparatus ~~apparatuses~~ comprises:

means for receiving a response as being effective only when the source of the response received via said network is an input/output control apparatus ~~apparatuses~~ which has been set in advance.

5. (Currently amended) A computer system according to claim 2, wherein said CPU and memory installed apparatus communicates with other CPU and memory installed apparatuses in network is also used for communications between ~~said plurality of CPU and memory installed apparatuses via said network apparatus.~~

6. (Currently amended) A computer system according to claim 3, wherein said communication means of ~~each of~~ said CPU and memory installed apparatus ~~apparatuses~~ comprises:

means for receiving a response as being effective only when the source of the

Serial No.: 10/058,264
Docket No. NEC01P260-I-IIa

4

response received via said network is an input/output control apparatus ~~apparatuses~~ which has been set in advance.

7. (Currently amended) A computer system according to claim 5, wherein said communication means of ~~each of~~ said CPU and memory installed apparatus ~~apparatuses~~ comprises:

means for communicating with the other CPU and memory installed apparatuses via said network.

8. (Currently amended) A computer system according to claim 7, wherein the communications between said CPU and memory installed apparatus and the other plurality of CPU and memory installed apparatuses comprise ~~are~~ communications for accessing memories installed on the other CPU and memory installed apparatuses ~~apparatus~~.

9. (Canceled)

10. (Currently amended) A computer system according to claim 2 ~~9~~, wherein the other CPU and memory installed apparatus comprises an active one of the CPU and memory installed apparatuses which is using another input/output control apparatuses ~~is used as said other normal CPU and memory installed apparatus~~.

11. (Currently amended) A computer system according to claim 2 ~~9~~, further comprising: a backup CPU and memory installed apparatus, said backup CPU and memory installed apparatus ~~apparatuses~~ being used as said other ~~normal~~ CPU and memory installed apparatus.

12. (Currently amended) A computer system according to claim 2, further comprising: a at least one backup input/output control apparatus which is assigned to the CPU and memory installed apparatus if the input/output control apparatus is faulty ~~and means for assigning said backup input/output control apparatuses to said CPU and memory installed apparatuses which have been using faulty input/output control apparatuses when said faulty~~

Serial No.: 10/058.264
Docket No. NEC01P260-H1a

5

~~input/output control apparatuses fail to operate, thereby to continue system operation.~~

13. (Canceled)

14. (Currently amended) A CPU and memory installed ~~apparatus~~ apparatuses for a computer system, said apparatus comprising:

at least one central processing unit (CPU) and at least one memory;

communication means for communicating with an external circuit comprising an input/output control apparatus, transmitting an input/output instruction issued by said CPU to said input/output control apparatuses which has been assigned in advance, and receiving a response from said input/output control apparatus;

a diagnostic control circuit connected with said CPU and said at least one memory and with said input/output control apparatus; and

a single board on which said CPU, said memory, said diagnostic control circuit and said communication means are mounted,

wherein ~~if when~~ said diagnostic control circuit detects a fault in said ~~connected~~ CPU and memory installed apparatus, said diagnostic control circuit retrieves previously stored information that determines a new connection between an other ~~a second~~ non-faulty CPU and memory installed apparatus in the computer system and the ~~an~~ input/output control apparatus ~~originally connected to a faulty CPU and memory installed apparatus.~~

15. (Currently amended) A CPU and memory installed apparatuses according to claim 14, wherein said communication means comprises:

means for receiving said response as being effective only when the source of the received response is the input/output control ~~apparatus~~ apparatuses which has been assigned in advance.

16. (Currently amended) An input/output control apparatus for a computer system, said apparatus comprising:

an input/output control circuit for controlling a peripheral device based on an input/output instruction; and

Serial No.: 10/058,264
Docket No. NEC01P260-H1a

6

communication means for communicating with an external circuit comprising a central processing unit (CPU) and memory installed apparatus and at least one diagnostic control circuit, for receiving an input/output instruction from said CPU and memory installed apparatus which has been set in advance and transferring said input/output instruction to said input/output control circuit, and for transmitting a response to said input/output instruction to said CPU and memory installed apparatus,

wherein ~~if when~~ said diagnostic control circuit detects a fault in said ~~connected~~ CPU and memory installed apparatus, said diagnostic control circuit retrieves previously stored information that determines a new connection between an other a second non-faulty CPU and memory installed apparatus in the computer system and the an input/output control apparatus ~~originally connected to a faulty CPU and memory installed apparatus.~~

17. (Previously Presented) An input/output control apparatus according to claim 16, wherein said communication means comprises:

means for receiving said input/output instruction as being effective only when the source of the received input/output instruction is the CPU and memory installed apparatus which has been set in advance.

18. (Previously Presented) A computer system according to claim 2, wherein each of said plurality of input/output control apparatuses further comprises an input/output (I/O) device.

19. (Previously Presented) A computer system according to claim 18, wherein said input/output (I/O) device is connected to a peripheral device.

20. (Previously Presented) A computer system according to claim 18, wherein said input/output (I/O) device is connected to a second network.

21. (Canceled)

22. (Previously Presented) The computer system according to claim 2, wherein said communication means comprises a plurality of ports.

Serial No.: 10/058.264
Docket No. NEC01P260-HIa

7

23. (Previously Presented) The computer system according to claim 22, wherein each of said plurality of input/output control apparatuses is allocated to at least one of said plurality of ports of said communication means.

24. (Previously Presented) The computer system according to claim 22, wherein when one of the plurality of CPU and memory installed apparatuses stops its operation with one of said plurality of input/output control apparatuses, said one of said plurality of input/output control apparatuses is newly allocated to any one of the plurality of ports to which said one of said plurality of input/output control apparatuses was not previously allocated.